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03/13/2009

EXAMINER

AILES, BENJAMIN A

ART UNIT

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2442

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/051,682	COX ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	BENJAMIN AILES	2442	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8,10-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/22/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to correspondence filed 08 December 2008.
2. Claims 1, 3-8, 10-14 and 16-22 remain pending.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8, 10-13, 14 and 16-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. With respect to independent claim 8, the claim recites (on line 3): “a tangible computer-usable medium.” The computer-usable defined by the applicant’s specification, see page 18, lines 16-24, is not limited to tangible embodiments. The specification recites: “computer-usable media may include...communications media such wires, optical fibers, microwaves, radio waves, and other electromagnetical or optical carriers.” Because the claim language is not limited to tangible embodiments as evidenced by the applicant's specification, claim 8 is directed to non-statutory subject matter. Applicant's specification does not clearly define “tangible computer-usable medium” as claimed and therefore does not provide necessary antecedent basis. Dependent claims 10-13 are rejected based on their dependency on claim 8. Independent claim 14 recites the “tangible computer-usable medium” as well and is rejected for the same reasons as claim 8. Dependent claims 16-21 are rejected based on their dependency on claim 14.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, 8, 10-12, 14, 16-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (US 2007/0011283 A1), hereinafter referred to as Brown, in view of Cowan et al. (US 6,115,743), hereinafter referred to as Cowan.

5. .Regarding claim 1, Brown teaches a method of validating a network, the method comprising:

receiving user input requesting a validation process to validate a network (p. 3, para. 0025, ll 8-12, system admin requests comparison), the network including a plurality of devices (fig. 2, endpoint systems 230A-230N);

in response to the user input, automatically communicating with one or more of the devices in the network and discovering attributes of the devices (p. 3, para. 0024, ll. 13-16);

determining whether the one or more devices are compatible to operate with each other by automatically comparing the discovered attributes with a predefined set of valid device attributes, the predefined set of valid device attributes specifying device attributes that are compatible with one another (p. 3, para. 0025, ll 8-12, comparison of settings);

generating output data that indicates whether the discovered attributes match the valid device attributes (p. 3, para. 0025, ll. 11-12, GUI); and

generating output data that identifies an invalid attribute among the discovered attributes and a corresponding valid attribute from the predefined set of valid device attributes (p. 3, para. 0025, ll. 11-12, GUI).

Brown teaches the validation of a network by validating a device's attributes (p. 3, para. 0025, ll 8-12) but does not explicitly teach "in response to the user input, automatically testing an interconnection among the plurality of devices in the network; if the tested interconnection is inactive, generating a message that identifies the inactive interconnection; and if the one or more devices is inactive, recording a device access failure for the inactive device;" Cowan teaches on these limitations wherein Cowan teaches the testing of interconnections between devices (fig. 2 and column 5, lines 33-41; query status of links, network devices), generate a message that identifies the inactive interconnection (col. 7, ll. 3-10, detect network outage), and record a device access failure (col. 7, ll. 3-10, report network outage). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to implement the testing of interconnections between networked devices and reporting thereof as taught by Cowan in combination with the device attribute validation method taught by Brown. One of ordinary skill in the art would have been motivated to combine Brown and Cowan wherein Cowan teaches the utilization of a graphical user interface to provide easy management and monitoring of a network (col. 1, line 66 - col. 2, lines 10).

6. Regarding claim 3, Brown and Cowan teach the method, wherein:

the predefined set of valid device attributes specifies valid software versions (Brown, p. 3, para. 0027, configuration settings);

the operation of automatically discovering attributes of the devices comprises automatically discovering version information for software in one or more of the devices (Brown, p. 3, para. 0025, ll 8-12); and

the operation of automatically comparing the discovered attributes with the predefined set of valid device attributes comprises automatically comparing the discovered version information with the valid software versions (Brown, p. 3, para. 0025, ll 8-12, use of a model).

7. Regarding claim 4, Brown and Cowan teach the method wherein:

the software in at least one of the one or more devices comprises firmware (Brown, p. 3, para. 0027); and

the operation of automatically comparing the discovered attributes with the predefined set of valid device attributes comprises automatically determining whether the firmware has a valid version (p. 3, para. 0025, ll 8-12, use of a model).

8. Regarding claim 5, Brown and Cowan teach the method wherein the operation of automatically discovering attributes of the devices comprises:

automatically identifying a device type for at least one of the devices (Brown, p. 3, para. 0025, ll 8-12, use of a model);

dynamically loading a validation module based on the identified device type (Brown, p. 3, para. 0025, ll 8-12, use of a model); and

automatically using the validation module to poll the at least one device (Brown, p. 3, para. 0025, ll 8-12, use of a model).

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9. Regarding claim 8, Brown teaches a program product for validating devices in a network, the program product comprising:

a tangible computer-usable medium (p. 3, para. 0026);

computer instructions encoded in the tangible computer-usable medium, wherein, when executed, the computer instructions perform operations comprising:

receiving user input requesting a validation process to validate a network, the network including a plurality of devices (p. 3, para. 0025, ll 8-12);

in response to the user input, automatically communicating with one or more of the devices in the network and discovering attributes of the one or more devices (p. 3, para. 0025, ll 8-12);

determining whether the one or more devices are compatible with each other by automatically comparing the discovered attributes with a predefined set of valid device attributes; generating output data that indicates whether the discovered attributes match the valid device attributes, the predefined set of valid device attributes specifying device attributes that are compatible with each other (p. 3, para. 0025, ll 8-12, use of a model); and

generating output data that identifies an invalid attribute among the discovered attributes and a corresponding valid attribute from the predefined set of valid device attributes (p. 3, para. 0025, ll 8-12).

Brown teaches the validation of a network by validating a device's attributes (p. 3, para. 0025, ll 8-12) but does not explicitly teach "in response to the user input, automatically testing an interconnection among the plurality of devices in the network; if

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the tested interconnection is inactive, generating a message that identifies the inactive interconnection; and if the one or more devices is inactive, recording a device access failure for the inactive device;" Cowan teaches on these limitations wherein Cowan teaches the testing of interconnections between devices (fig. 2 and column 5, lines 33-41; query status of links, network devices), generate a message that identifies the inactive interconnection (col. 7, ll. 3-10, detect network outage), and record a device access failure (col. 7, ll. 3-10, report network outage). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to implement the testing of interconnections between networked devices and reporting thereof as taught by Cowan in combination with the device attribute validation method taught by Brown. One of ordinary skill in the art would have been motivated to combine Brown and Cowan wherein Cowan teaches the utilization of a graphical user interface to provide easy management and monitoring of a network (col. 1, line 66 - col. 2, lines 10).

10. Regarding claim 10, Brown and Cowan teach the program product wherein:

the predefined set of valid device attributes specifies valid software versions (Brown, p. 3, para. 0025, ll 8-12, use of a model);

the operation of automatically discovering attributes of the devices comprises automatically discovering version information for software in one or more of the devices (Brown, p. 3, para. 0025, ll 8-12, use of a model); and

the operation of automatically comparing the discovered attributes with the predefined set of valid device attributes comprises automatically comparing the



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discovered version information with the valid software versions (Brown, p. 3, para. 0025, ll 8-12, use of a model).

11. Regarding claim 11, Brown and Cowan teach the program product wherein:

the software in at least one of the one or more devices comprises firmware (Brown, p. 3, para. 0027); and

the operation of automatically comparing the discovered attributes with the predefined set of valid device attributes comprises automatically determining whether the firmware has a valid version (Brown, p. 3, para. 0027).

12. Regarding claim 12, Brown and Cowan teach the program product wherein the operation of automatically discovering attributes of the devices comprises:

automatically identifying a device type for at least one of the devices (Brown, p. 3, para. 0027);

dynamically loading a validation module based on the identified device type (Brown, p. 3, para. 0027); and

automatically using the validation module to poll the at least one device (Brown, p. 3, para. 0027).

13. Regarding claim 14, Brown teaches an information handling system for validating a network configuration, the information handling system comprising:

a tangible computer-usable medium (p. 3, para. 0027);

a predefined set of valid device attributes stored in the tangible computer-usable medium (p. 3, para. 0025, ll 8-12, use of a model);

a network interface in communication with a network of devices (p. 3, para. 0027); and

processing resources in communication with the network interface and the computer- usable medium, wherein the processing resources perform operations comprising:

receiving user input requesting a validation process to validate a network, the network including a plurality of devices (p. 3, para. 0025, ll 8-12, use of a model);

in response to the user input, automatically communicating with one or more of the devices via the network interface to discover attributes of the devices (p. 3, para. 0025, ll 8-12, use of a model);

determining whether the one or more devices are compatible to operate with each other by automatically comparing the discovered attributes with the predefined set of valid device attributes, the predefined set of valid device attributes specifying device attributes that are compatible with each other (p. 3, para. 0025, ll 8-12);

generating output data that indicates whether the discovered attributes match the valid device attributes (p. 3, para. 0025, ll 8-12); and

generating output data that identifies an invalid attribute among the discovered attributes and a corresponding valid attribute from the predefined set of valid device attributes (p. 3, para. 0025, ll 8-12).

Brown teaches the validation of a network by validating a device's attributes (p. 3, para. 0025, ll 8-12) but does not explicitly teach "in response to the user input, automatically testing an interconnection among the plurality of devices in the network; if

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the tested interconnection is inactive, generating a message that identifies the inactive interconnection; and if the one or more devices is inactive, recording a device access failure for the inactive device;" Cowan teaches on these limitations wherein Cowan teaches the testing of interconnections between devices (fig. 2 and column 5, lines 33-41; query status of links, network devices), generate a message that identifies the inactive interconnection (col. 7, ll. 3-10, detect network outage), and record a device access failure (col. 7, ll. 3-10, report network outage). One of ordinary skill in the art at the time of the applicant's invention would have found it obvious to implement the testing of interconnections between networked devices and reporting thereof as taught by Cowan in combination with the device attribute validation method taught by Brown. One of ordinary skill in the art would have been motivated to combine Brown and Cowan wherein Cowan teaches the utilization of a graphical user interface to provide easy management and monitoring of a network (col. 1, line 66 - col. 2, lines 10).

14. Regarding claim 16, Brown and Cowan teach the information handling system wherein:

the predefined set of valid device attributes specifies valid software versions (Brown, p. 3, para. 0025, ll 8-12, use of a model);

the processing resources automatically discover version information for software in one or more of the devices (Brown, p. 3, para. 0025, ll 8-12, use of a model); and

the processing resources automatically compare the discovered version information with the valid software versions (Brown, p. 3, para. 0025, ll 8-12, use of a model).

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15. Regarding claim 17, Brown and Cowan teach the information handling system wherein the software in at least one of the one or more devices comprises firmware (Brown, p. 3, para. 0027), and the processing resources automatically determine whether the firmware has a valid version (Brown, p. 3, para. 0027).

16. Regarding claim 18, Brown and Cowan teach the information handling system wherein:

the processing resources automatically identify a device type for at least one of the devices (Brown, p. 3, para. 0025, ll 8-12, use of a model);

the processing resources dynamically load a validation module based on the identified device type (Brown, p. 3, para. 0025, ll 8-12, use of a model); and

the processing resources automatically use the validation module to poll the at least one device (Brown, p. 3, para. 0025, ll 8-12, use of a model).

17. Regarding claim 21, Brown and Cowan teach the information handling system wherein the processing resources comprise:

one or more processors (Brown, p. 3, para. 0027); and

software which, when executed by the one or more processors, cause the one or more processors to perform the operations of receiving user input, automatically communicating with the devices, automatically comparing the discovered attributes with the predefined set of valid device attributes, and generating output data (Brown, p. 3, para. 0025, ll 8-12, use of a model).

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18. Claims 6, 7, 13, 19 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Brown and Cowan in view of Price et al. (US 7,133,906 B2), hereinafter referred to as Price.

19. Regarding claim 6, Brown teaches the utilization of a file for reference when determining valid device attributes (p. 3, para. 0027) however does not explicitly teach the utilization of a markup language to encode the valid device attributes. In related art, Price teaches on this limitation of using a markup language to encode the valid device attributes wherein Price teaches the use of a markup language (XML) when performing configuration techniques within a network of network devices in an Internet like system (col. 2, ll. 45-58). One of ordinary skill in the art at the time of the applicants' invention would have found it obvious to utilize a markup language to encode the valid device attributes as taught by Price. One of ordinary skill in the art would have been motivated to use a markup language due to their inherent nature of being easy to use common usage as demonstrated by Price (col. 2, ll. 49-53).

20. Regarding claim 7, Brown, Cowan and Price teach the method wherein:

the file with the valid device attributes comprises an extensible markup language (XML) file (Price, col. 2, ll. 45-58); and

the operation of automatically determining the valid device attributes comprises parsing the XML file by reference to a document type definition (DTD) file, wherein the DTD file contains definitions of data elements for validating the network (Price, col. 5, ll. 30-36).

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21. Regarding claim 13, Brown teaches the utilization of a file for reference when determining valid device attributes (p. 3, para. 0027) however does not explicitly teach the utilization of a markup language to encode the valid device attributes. In related art, Price teaches on this limitation of using a markup language to encode the valid device attributes wherein Price teaches the use of a markup language (XML) when performing configuration techniques within a network of network devices in an Internet like system (col. 2, ll. 45-58). One of ordinary skill in the art at the time of the applicants' invention would have found it obvious to utilize a markup language to encode the valid device attributes as taught by Price. One of ordinary skill in the art would have been motivated to use a markup language due to their inherent nature of being easy to use common usage as demonstrated by Price (col. 2, ll. 49-53).

22. Regarding claim 19, Brown teaches the utilization of a file for reference when determining valid device attributes (col. 7, ll. 53-56, storage of configuration information) however does not explicitly teach the utilization of a markup language to encode the valid device attributes. In related art, Price teaches on this limitation of using a markup language to encode the valid device attributes wherein Price teaches the use of a markup language (XML) when performing configuration techniques within a network of network devices in an Internet like system (col. 2, ll. 45-58). One of ordinary skill in the art at the time of the applicants' invention would have found it obvious to utilize a markup language to encode the valid device attributes as taught by Price. One of ordinary skill in the art would have been motivated to use a markup language due to

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their inherent nature of being easy to use common usage as demonstrated by Price (col. 2, ll. 49-53).

23. Regarding claim 20, Brown, Cowan and Price teach the information handling system wherein:

the file with the valid device attributes comprises an extensible markup language (XML) file (Price, col. 2, ll. 45-58);

the information handling system further comprises a document type definition (DTD) file that contains definitions of data elements for validating the network (Price, col. 5, ll. 30-36); and

the processing resources automatically determine the valid device attributes by using the DTD file to parse the XML file (Price, col. 5, ll. 30-36).

24. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown and Cowan in view of East et al. (US 2003/0061323), hereinafter referred to as East.

25. Regarding claim 22, Brown teaches a method of validating a network comprising:

receiving user input requesting validation of a network, the network including a plurality of devices (p. 3, para. 0025, ll 8-12, use of a model);

in response to the user input, automatically discovering attributes of one or more of the devices in the network (p. 3, para. 0025, ll 8-12, use of a model);

automatically comparing the discovered attributes with a predefined set of valid hardware attributes (p. 3, para. 0027); and

generating output data that indicates whether the discovered attributes match the valid hardware attributes (p. 3, para. 0027).

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Brown teaches the validation determination of network device attributes (p. 3, para. 0025, ll 8-12) but does not explicitly teach wherein the network device attributes are hardware attributes. However, in related art, East teaches on this aspect of the invention wherein East teaches the configuration determination of network devices and performs configuration steps based on device hardware attributes (p. 2, para. 0009, network updates). One of ordinary skill in the art would have found it obvious to perform network validation based on a devices hardware attributes and therefore would have found it obvious to combine the teachings of East with Brown. One of ordinary skill in the art would have been motivated to combine East with Brown wherein East teaches the importance of clustering network devices based on hardware attributes (p. 2, para. 0009).

Brown teaches the validation of a network by validating a device's attributes (p. 3, para. 0025, ll 8-12) but does not explicitly teach "in response to the user input, automatically discovering attributes of one or more interconnections among the plurality of devices in the network; automatically comparing the discovered interconnection attributes with a predefined set of valid interconnection attributes; and generating output data that indicates whether the discovered interconnection attributes match the valid interconnection attributes;" Cowan teaches on these limitations wherein Cowan teaches the testing of interconnections between devices (fig. 2 and column 5, lines 33-41; query status of links, network devices), detect invalid interconnection attributes (col. 7, ll. 3-10, detect network outage), and indicate invalid interconnection attributes (col. 7, ll. 3-10, report network outage). One of ordinary skill in the art at the time of the applicant's



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invention would have found it obvious to implement the testing of interconnections between networked devices and reporting thereof as taught by Cowan in combination with the device attribute validation method taught by Brown. One of ordinary skill in the art would have been motivated to combine Brown and Cowan wherein Cowan teaches the utilization of a graphical user interface to provide easy management and monitoring of a network (col. 1, line 66 - col. 2, lines 10).

### ***Response to Arguments***

#### **Claims 8, 10-13, 14 and 16-21 rejected under 35 USC 101**

26. Applicant's arguments filed 08 December 2008, with respect to claims 8, 10-13, 14 and 16-21, have been fully considered but they are not persuasive.

27. With respect to independent claim 8, applicant's amendment, wherein the claim now recites "a tangible computer-usable medium", fails to overcome the rejection previously set forth. Applicant's specification does not clearly define what the applicant intends to include with respect to "tangible" embodiments. The specification recites: "computer-usable media may include...communications media such wires, optical fibers, microwaves, radio waves, and other electromagnetical or optical carriers." It is best understood, from the specification, that the applicant intends to include transmission media that is not considered statutory. Therefore, the rejection has been maintained. Dependent claims 10-13 are rejected based on their dependency on claim 8. Independent claim 14 recites the "tangible computer-usable medium" as well and is rejected for the same reasons as claim 8. Dependent claims 16-21 are rejected based on their dependency on claim 14.

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**Claims 1, 3-5, 8, 10-12, 14, 16-18 and 21 rejected under 35 USC 102(e)**

28. Applicant's arguments, see Remarks, filed 08 December 2008, with respect to the rejection(s) of claims 1, 3-5, 8, 10-12, 14, 16-18 and 21 under 35 USC 102(e) in view of Brown have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Brown and Cowan as set forth above.

**Claim 22 rejected under 35 USC 103(a)**

29. Applicant's arguments, see Remarks, filed 08 December 2008, with respect to the rejection(s) of claims 1, 3-5, 8, 10-12, 14, 16-18 and 21 under 35 USC 103(a) in view of Brown and East have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Brown and Cowan and further in view of East as set forth above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Ailes whose telephone number is (571)272-3899. The examiner can normally be reached Monday-Friday, IFP Hoteling schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. A. A./  
Examiner, Art Unit 2442

/Andrew Caldwell/  
Supervisory Patent Examiner, Art  
Unit 2442